

Docket No.: 230421US41YA/mca

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Andrej S. MITROVIC, et al. ALLOWED: MAY 23, 2011

SERIAL NUMBER: 10/673,501

GROUP: 2128

FILED: September 30, 2003

EXAMINER: SAXENA, AKASH

FOR: SYSTEM AND METHOD FOR USING FIRST-PRINCIPLES SIMULATION TO  
CHARACTERIZE A SEMICONDUCTOR MANUFACTURING PROCESS

**COMMENTS ON STATEMENT OF REASONS FOR ALLOWANCE**

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VA 22313-1450

SIR:

Applicants acknowledge with appreciation the indication of allowability of the claimed invention. In response to the Examiner's statement enclosed with the Notice of Allowance of May 23, 2011, Applicants respectfully submit the following comments.

In the Examiner's statement enclosed with the Notice of Allowance, on page 2, paragraph 9 states:

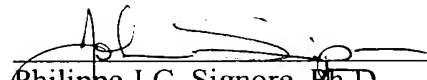
9. The following is an **examiner's statement of reasons for allowance**: claim(s) 1-8, 10, 12-13, 15-30, 32, 34-35, 37-44 and 48 are considered allowable since when reading the claims in light of the specification, none of the references of record alone or in combination disclose or suggest the combination of limitations specified in the independent claims, specifically "1) a spatially resolved model of a physical geometry of the semiconductor processing tool and 2) a grid set addressing the semiconductor processing tool or a geometry of the semiconductor processing tool (as defined in specification: [0076])... using code parallelization techniques on multiple simulation modules in the device manufacturing fab, and re-using known simulation solutions as initial conditions for the first principles simulation (as defined in specification: [0049] [0050])... wherein re-using known simulation solutions comprises searching in the fab-level library for a closest fitting solution which if used for the initial condition would reduce the number of iterations required by the simulation module" (as

defined in specification: [0076]), as disclosed in independent claims 1, 23 and 48 of the instant application.

The Examiner's Statement mischaracterizes the claims to the extent that the Examiner's Statement refers to the specification and suggests that the claims include additional limitations beyond the language of claims. The specification provides non-limiting embodiments of Applicant's advancement. It is the claims that define the invention, and not Applicant's specification. Accordingly, it is respectfully submitted that the above-quoted statement does not apply to Claims 1, 23 and 48 to the extent the language used in the statement differs from the language of the claims.

Respectfully Submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, L.L.P.

  
Philippe J.C. Signore, Ph.D.  
Registration No. 43,922

Customer Number

**22850**

Tel. (703) 413-3000  
Fax. (703) 413-2220  
(OSMMN 07/09)

John Sipos

Registration No. 61,985